

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application. Claims 119-153, 231 and 233-313 are currently pending. Claims 233, 271-273, 311, and 312 have been amended herein.

Claims 1 - 118 (cancelled).

Claim 119 (previously presented): A method of making a paper product comprising:

dispersing papermaking fibers in a first aqueous solution;

dispersing thermally bondable fibers exhibiting hydrophilicity in the first or a second aqueous solution;

forming said papermaking fibers and said thermally bondable fibers into a nascent tissue web, wherein said nascent tissue web is formed at a line speed in excess of 1000 feet/minute and wherein said nascent tissue web has a basis weight of less than about 35 pounds/ream and a formation index of greater than about 42; and drying said nascent tissue web.

Claim 120 (previously presented): The method according to claim 119, wherein said papermaking fibers and said thermally bondable fibers are dispersed simultaneously in the first aqueous solution.

Claim 121 (previously presented): The method according to claim 119, wherein said papermaking fibers and said thermally bondable fibers are dispersed sequentially in the first aqueous solution.

Claim 122 (previously presented): The method according to claim 119, wherein the tissue web further comprises a wet strength agent.

Claim 123 (previously presented): The method according to claim 122, wherein the wet strength agent is chosen from at least one of permanent wet strength agents and temporary wet strength agents.

Claim 124 (previously presented): The method according to claim 123, wherein the wet strength agent comprises a permanent wet strength agent chosen from at least one of aliphatic and aromatic aldehydes, urea-formaldehyde resins, melamine formaldehyde resins, and polyamide-epichlorohydrin resins.

Claim 125 (previously presented): The method according to claim 123, wherein the wet strength agent comprises a temporary wet strength agent chosen from at least one of aliphatic and aromatic aldehydes, glyoxal, malonic dialdehyde, succinic dialdehyde, glutaraldehyde, dialdehyde starches, substituted or reacted starches, disaccharides, polysaccharides, polyethylene imine, chitosan, and reacted polymeric reaction products of monomers or polymers having aldehyde groups.

Claim 126 (previously presented): The method according to claim 119, wherein the tissue web further comprises a dry strength agent chosen from at least one of starch, guar gum, polyacrylamides, and carboxymethyl cellulose.

Claim 127 (previously presented): The method according to claim 119, wherein said tissue web is formed by conventional wet pressing.

Claim 128 (previously presented): The method according to claim 127, further comprising creping said tissue web from a Yankee dryer after drying.

Claim 129 (previously presented): The method according to claim 127, wherein the papermaking fibers and the thermally bondable fibers in the tissue web are stratified.

Claim 130 (previously presented): The method according to claim 119, further comprising forming the tissue web by through air drying.

Claim 131 (previously presented): The method according to claim 130, further comprising creping said tissue web from a Yankee dryer after drying.

Claim 132 (previously presented): The method according to claim 130, wherein said tissue web is uncreped.

Claim 133 (previously presented): The method according to claim 130, wherein the papermaking fibers and the thermally bondable fibers in the tissue web are stratified.

Claim 134 (previously presented): The method according to claim 119, further comprising heat treating said tissue web after drying.

Claim 135 (original): The method according to claim 134, wherein the heat treatment is carried out at a temperature of at least about 165°F.

Claim 136 (original): The method according to claim 134, wherein the heat treatment is carried out at a temperature of between about 200°F and about 310°F.

Claim 137 (previously presented): The method according to claim 119, wherein the papermaking fibers are wood fibers.

Claim 138 (previously presented): The method according to claim 119, wherein the thermally bondable fibers are chosen from at least one of bicomponent and tricomponent fibers.

Claim 139 (previously presented): The method according to claim 138, wherein the thermally bondable fibers are bicomponent fibers that comprise at least one of polyesters, polyolefins, copolyolefins, polyethylenes, polypropylenes, polybutylenes,

polyethylene terephthalates, polytrimethylene terephthalates, polybutylene terephthalates, polyurethanes, polyamides, polycarboxylic acids, alkylene oxides, and polylactic acids.

Claim 140 (previously presented): The method according to claim 138, wherein the thermally bondable fibers are tricomponent fibers that comprise at least one of polyesters, polyolefins, copolyolefins, polyethylenes, polypropylenes, polybutylenes, polyethylene terephthalates, polytrimethylene terephthalates, polybutylene terephthalates, polyurethanes, polyamides, polycarboxylic acids, alkylene oxides, and polylactic acids.

Claim 141 (previously presented): The method according to claim 119, wherein the thermally bondable fibers are surface modified by the introduction of a surfactant chosen from at least one of an anionic, a zwitterionic, a cationic, and a non-ionic surfactant.

Claim 142 (previously presented): The method according to claim 141, wherein the surfactant comprises a non-ionic surfactant.

Claim 143 (previously presented): The method according to claim 119, wherein the thermally bondable fibers are present in the tissue web in an amount of not less than about 2%.

Claim 144 (previously presented): The method according to claim 119, wherein the thermally bondable fibers are present in the tissue web in an amount of not more than about 50%.

Claim 145 (previously presented): The method according to claim 119, wherein the thermally bondable fibers are present in the tissue web in an amount of from about 5 to about 30%.

Claim 146 (previously presented): The method according to claim 119, wherein the papermaking fibers and the thermally bondable fibers in the tissue web are homogeneous.

Claim 147 (previously presented): The method according to claim 119, wherein the thermally bondable fibers have a length of not less than about 1 mm.

Claim 148 (previously presented): The method according to claim 119, wherein the thermally bondable fibers have a length of not more than about 25 mm.

Claim 149 (previously presented): The method according to claim 119, wherein the thermally bondable fibers have a length of from about 6 to about 13 mm.

Claim 150 (previously presented): The method according to claim 119, further comprising embossing the tissue web after drying.

Claim 151 (previously presented): The method according to claim 150, further comprising heat treating said tissue web after drying.

Claim 152 (original): The method according to claim 151, wherein the heat treatment is carried out at a temperature of at least about 165°F.

Claim 153 (original): The method according to claim 152, wherein the heat treatment is carried out at a temperature of between about 200°F and about 310°F.

Claims 154-230 (cancelled).

Claim 231 (previously presented): The method according to claim 119, further comprising forming said tissue web by use of a slotted screen.

Claim 232 (cancelled).

Claim 233 (currently amended): A method of making a paper product comprising:

dispersing papermaking fibers in a first aqueous solution;

dispersing thermally bondable fibers exhibiting hydrophilicity in the first or a second aqueous solution;

forming said papermaking fibers and said thermally bondable fibers into a nascent tissue web, wherein said nascent tissue web is formed at a line speed in

excess of 1000 feet/minute and wherein said nascent tissue web has a CD wet breaking length of at least about 250 meters and a SAT capacity of at least about [[5]] 7 grams/gram; and
drying said nascent tissue web.

Claim 234 (previously presented): The method according to claim 233, wherein said papermaking fibers and said thermally bondable fibers are dispersed simultaneously in the first aqueous solution.

Claim 235 (previously presented): The method according to claim 233, wherein said papermaking fibers and said thermally bondable fibers are dispersed sequentially in the first aqueous solution.

Claim 236 (previously presented): The method according to claim 233, wherein the tissue web further comprises a wet strength agent.

Claim 237 (previously presented): The method according to claim 236, wherein the wet strength agent is chosen from at least one of permanent wet strength agents and temporary wet strength agents.

Claim 238 (previously presented): The method according to claim 237, wherein the wet strength agent comprises a permanent wet strength agent chosen from at least

one of aliphatic and aromatic aldehydes, urea-formaldehyde resins, melamine formaldehyde resins, and polyamide-epichlorohydrin resins.

Claim 239 (previously presented): The method according to claim 237, wherein the wet strength agent comprises a temporary wet strength agent chosen from at least one of aliphatic and aromatic aldehydes, glyoxal, malonic dialdehyde, succinic dialdehyde, glutaraldehyde, dialdehyde starches, substituted or reacted starches, disaccharides, polysaccharides, polyethylene imine, chitosan, and reacted polymeric reaction products of monomers or polymers having aldehyde groups.

Claim 240 (previously presented): The method according to claim 233, wherein the tissue web further comprises a dry strength agent chosen from at least one of starch, guar gum, polyacrylamides, and carboxymethyl cellulose.

Claim 241 (previously presented): The method according to claim 233, wherein the tissue web is formed by conventional wet pressing.

Claim 242 (previously presented): The method according to claim 241, further comprising creping said tissue web from a Yankee dryer after drying.

Claim 243 (previously presented): The method according to claim 241, wherein the papermaking fibers and thermally bondable fibers in the tissue web are stratified.

Claim 244 (previously presented): The method according to claim 233, further comprising forming the tissue web by through air drying.

Claim 245 (previously presented): The method according to claim 244, further comprising creping said tissue web from a Yankee dryer after drying.

Claim 246 (previously presented): The method according to claim 244, wherein said tissue web is uncreped.

Claim 247 (previously presented): The method according to claim 244, wherein the papermaking fibers and thermally bondable fibers in the tissue web are stratified.

Claim 248 (previously presented): The method according to claim 233, further comprising heat treating said tissue web after drying.

Claim 249 (previously presented): The method according to claim 248, wherein the heat treatment is carried out at a temperature of at least about 165°F.

Claim 250 (previously presented): The method according to claim 248, wherein the heat treatment is carried out at a temperature of between about 200°F and about 310°F.

Claim 251 (previously presented): The method according to claim 233, wherein the papermaking fibers are wood fibers.

Claim 252 (previously presented): The method according to claim 233, wherein the thermally bondable fibers are chosen from at least one of bicomponent and tricomponent fibers.

Claim 253 (previously presented): The method according to claim 252, wherein the thermally bondable fibers are bicomponent fibers that comprise at least one of polyesters, polyolefins, copolyolefins, polyethylenes, polypropylenes, polybutylenes, polyethylene terephthalates, polytrimethylene terephthalates, polybutylene terephthalates, polyurethanes, polyamides, polycarboxylic acids, alkylene oxides, and polylactic acids.

Claim 254 (previously presented): The method according to claim 252, wherein the thermally bondable fibers are tricomponent fibers that comprise at least one of polyesters, polyolefins, copolyolefins, polyethylenes, polypropylenes, polybutylenes, polyethylene terephthalates, polytrimethylene terephthalates, polybutylene terephthalates, polyurethanes, polyamides, polycarboxylic acids, alkylene oxides, and polylactic acids.

Claim 255 (previously presented): The method according to claim 233, wherein the thermally bondable fibers are surface modified by the introduction of a surfactant

chosen from at least one of an anionic, a zwitterionic, a cationic, and a non-ionic surfactant.

Claim 256 (previously presented): The method according to claim 255, wherein the surfactant comprises a non-ionic surfactant.

Claim 257 (previously presented): The method according to claim 233, wherein the thermally bondable fibers are present in the tissue web in an amount of not less than about 2%.

Claim 258 (previously presented): The method according to claim 233, wherein the thermally bondable fibers are present in the tissue web in an amount of not more than about 50%.

Claim 259 (previously presented): The method according to claim 233, wherein the thermally bondable fibers are present in the tissue web in an amount of from about 5 to about 30%.

Claim 260 (previously presented): The method according to claim 233, wherein the papermaking fibers and thermally bondable fibers in the tissue web are homogeneous.

Claim 261 (previously presented): The method according to claim 233, wherein the thermally bondable fibers have a length of not less than about 1 mm.

Claim 262 (previously presented): The method according to claim 233, wherein the thermally bondable fibers have a length of not more than about 25 mm.

Claim 263 (previously presented): The method according to claim 233, wherein the thermally bondable fibers have a length of from about 6 to about 13 mm.

Claim 264 (previously presented): The method according to claim 233, further comprising embossing the tissue web after drying.

Claim 265 (previously presented): The method according to claim 264, further comprising heat treating the tissue web after drying.

Claim 266 (previously presented): The method according to claim 265, wherein the heat treatment is carried out at a temperature of at least about 165°F.

Claim 267 (previously presented): The method according to claim 266, wherein the heat treatment is carried out at a temperature of between about 200°F and about 310°F.

Claim 268 (previously presented): The method according to claim 233, further comprising forming said tissue web by use of a slotted screen.

Claim 269 (previously presented): The method according to claim 233, wherein the CD wet breaking length is at least about 300 meters.

Claim 270 (previously presented): The method according to claim 233, wherein the CD wet breaking length is from at least about 250 meters to about 500 meters.

Claim 271 (currently amended): The method according to claim 233, wherein the SAT capacity is at least about ~~[[6]]~~ 8 grams/gram.

Claim 272 (currently amended): The method according to claim 233, wherein the SAT capacity is from at least about ~~[[5]]~~ 7 grams/gram to about 14 grams/gram.

Claim 273 (currently amended): A method of making a paper product comprising:

dispersing papermaking fibers in a first aqueous solution;

dispersing thermally bondable fibers exhibiting hydrophilicity in the first or a second aqueous solution;

forming said papermaking fibers and said thermally bondable fibers into a nascent tissue web, wherein said nascent tissue web is formed at a line speed in excess of 1000 feet/minute, and wherein said nascent tissue web has a weight basis of

less than about 35 pounds/ream, a formation index of greater than about 42, a CD wet breaking length of at least about 250 meters, and a SAT capacity of at least about [[5]] 7 grams/gram; and

drying said nascent tissue web.

Claim 274 (previously presented): The method according to claim 273, wherein said papermaking fibers and said thermally bondable fibers are dispersed simultaneously in the first aqueous solution.

Claim 275 (previously presented): The method according to claim 273, wherein said papermaking fibers and said thermally bondable fibers are dispersed sequentially in the first aqueous solution.

Claim 276 (previously presented): The method according to claim 273, wherein the tissue web further comprises a wet strength agent.

Claim 277 (previously presented): The method according to claim 276, wherein the wet strength agent is chosen from at least one of permanent wet strength agents and temporary wet strength agents.

Claim 278 (previously presented): The method according to claim 277, wherein the wet strength agent comprises a permanent wet strength agent chosen from at least

one of aliphatic and aromatic aldehydes, urea-formaldehyde resins, melamine formaldehyde resins, and polyamide-epichlorohydrin resins.

Claim 279 (previously presented): The method according to claim 277, wherein the wet strength agent comprises a temporary wet strength agent chosen from at least one of aliphatic and aromatic aldehydes, glyoxal, malonic dialdehyde, succinic dialdehyde, glutaraldehyde, dialdehyde starches, substituted or reacted starches, disaccharides, polysaccharides, polyethylene imine, chitosan, and reacted polymeric reaction products of monomers or polymers having aldehyde groups.

Claim 280 (previously presented): The method according to claim 273, wherein the tissue web further comprises a dry strength agent chosen from at least one of starch, guar gum, polyacrylamides, and carboxymethyl cellulose.

Claim 281 (previously presented): The method according to claim 273, wherein the tissue web is formed by conventional wet pressing.

Claim 282 (previously presented): The method according to claim 281, further comprising creping said tissue web from a Yankee dryer after drying.

Claim 283 (previously presented): The method according to claim 281, wherein the papermaking fibers and thermally bondable fibers in the tissue web are stratified.

Claim 284 (previously presented): The method according to claim 273, further comprising forming the tissue web by through air drying.

Claim 285 (previously presented): The method according to claim 284, further comprising creping said tissue web from a Yankee dryer after drying.

Claim 286 (previously presented): The method according to claim 284, wherein said tissue web is uncreped.

Claim 287 (previously presented): The method according to claim 284, wherein the papermaking fibers and thermally bondable fibers in the tissue web are stratified.

Claim 288 (previously presented): The method according to claim 273, further comprising heat treating said tissue web after drying.

Claim 289 (previously presented): The method according to claim 288, wherein the heat treatment is carried out at a temperature of at least about 165°F.

Claim 290 (previously presented): The method according to claim 288, wherein the heat treatment is carried out at a temperature of between about 200°F and about 310°F.

Claim 291 (previously presented): The method according to claim 273, wherein the papermaking fibers are wood fibers.

Claim 292 (previously presented): The method according to claim 273, wherein the thermally bondable fibers are chosen from at least one of bicomponent and tricomponent fibers.

Claim 293 (previously presented): The method according to claim 292, wherein the thermally bondable fibers are bicomponent fibers that comprise at least one of polyesters, polyolefins, copolyolefins, polyethylenes, polypropylenes, polybutylenes, polyethylene terephthalates, polytrimethylene terephthalates, polybutylene terephthalates, polyurethanes, polyamides, polycarboxylic acids, alkylene oxides, and polylactic acids.

Claim 294 (previously presented): The method according to claim 292, wherein the thermally bondable fibers are tricomponent fibers that comprise at least one of polyesters, polyolefins, copolyolefins, polyethylenes, polypropylenes, polybutylenes, polyethylene terephthalates, polytrimethylene terephthalates, polybutylene terephthalates, polyurethanes, polyamides, polycarboxylic acids, alkylene oxides, and polylactic acids.

Claim 295 (previously presented): The method according to claim 273, wherein the thermally bondable fibers are surface modified by the introduction of a surfactant

chosen from at least one of an anionic, a zwitterionic, a cationic, and a non-ionic surfactant.

Claim 296 (previously presented): The method according to claim 295, wherein the surfactant comprises a non-ionic surfactant.

Claim 297 (previously presented): The method according to claim 273, wherein the thermally bondable fibers are present in the tissue web in an amount of not less than about 2%.

Claim 298 (previously presented): The method according to claim 273, wherein the thermally bondable fibers are present in the tissue web in an amount of not more than about 50%.

Claim 299 (previously presented): The method according to claim 273, wherein the thermally bondable fibers are present in the tissue web in an amount of from about 5 to about 30%.

Claim 300 (previously presented): The method according to claim 273, wherein the papermaking and thermally bondable fibers in the tissue web are homogeneous.

Claim 301 (previously presented): The method according to claim 273, wherein the thermally bondable fibers have a length of not less than about 1 mm.

Claim 302 (previously presented): The method according to claim 273, wherein the thermally bondable fibers have a length of not more than about 25 mm.

Claim 303 (previously presented): The method according to claim 273, wherein the thermally bondable fibers have a length of from about 6 to about 13 mm.

Claim 304 (previously presented): The method according to claim 273, further comprising embossing the tissue web after drying.

Claim 305 (previously presented): The method according to claim 304, further comprising heat treating the tissue web after drying.

Claim 306 (previously presented): The method according to claim 305, wherein the heat treatment is carried out at a temperature of at least about 165°F.

Claim 307 (previously presented): The method according to claim 306, wherein the heat treatment is carried out at a temperature of between about 200°F and about 310°F.

Claim 308 (previously presented): The method according to claim 273, further comprising forming said tissue web by use of a slotted screen.

Claim 309 (previously presented): The method according to claim 273, wherein the CD wet breaking length is at least about 300 meters.

Claim 310 (previously presented): The method according to claim 273, wherein the CD wet breaking length is from at least about 250 meters to about 500 meters.

Claim 311 (currently amended): The method according to claim 273, wherein the SAT capacity is at least about [[6]] 8 grams/gram.

Claim 312 (currently amended): The method according to claim 273, wherein the SAT capacity is from at least about [[5]] 7 grams/gram to about 14 grams/gram.

Claim 313 (previously presented): The method according to claim 119, further comprising:

embossing said nascent tissue web; and

heat treating said nascent tissue web at a temperature of at least about 200°F;

wherein the thermally bondable fibers are chosen from at least one of bicomponent and tricomponent fibers.